



April 10, 2014

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Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, D.C. 20554

**Re: GN Docket No. 12-268, *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*;
WT Docket No. 12-269, *Policies Regarding Mobile Spectrum Holdings***

Dear Ms. Dortch:

For nearly six years, the Rural Wireless Association, Inc. (“RWA”)¹ has continually and strongly advocated that the Federal Communications Commission (“FCC” or “Commission”) implement common-sense rules that would: (1) limit the total amount of commercial wireless spectrum any one carrier can hold in a given market; and (2) limit the total amount of low-band, “beachfront” commercial wireless spectrum any one carrier can hold in a given market. This letter sets forth the reasons why a separate more restrictive aggregation limit is needed for low-band spectrum.

On July 16, 2008, RWA (formerly known as the Rural Telecommunications Group, Inc.) filed a petition for rulemaking with the Commission seeking the establishment of a 110 megahertz (MHz) spectrum aggregation limit for all commercial terrestrial wireless spectrum below 2.3 GHz.² In autumn of 2012, the Commission issued an order terminating this proceeding,³ and in its place (and as part of a comprehensive review) issued a separate notice of

¹ The Rural Wireless Association, Inc. is a 501(c)(6) trade association dedicated to promoting wireless opportunities for rural wireless companies who serve rural consumers and those consumers traveling to rural America. RWA’s members are small businesses serving or seeking to serve secondary, tertiary, and rural markets. RWA’s members are comprised of both independent wireless carriers and wireless carriers that are affiliated with rural telephone companies. Each of RWA’s member companies serves fewer than 100,000 subscribers.

² *In the Matter of Rural Telecommunications Group, Inc., Petition for Rulemaking to Impose a Spectrum Aggregation Limit on all Commercial Terrestrial Wireless Spectrum Below 2.3 GHz*, Petition for Rulemaking of the Rural Telecommunications Group, Inc., RM Docket No. 11498 (Terminated) (filed July 16, 2008).

³ *In the Matter of Rural Telecommunications Group, Inc., Petition for Rulemaking to Impose a Spectrum Aggregation Limit on all Commercial Terrestrial Wireless Spectrum Below 2.3 GHz*, Order, RM. Docket No. 11498 (Terminated), FCC 12-1702 (released October 23, 2012).

proposed rulemaking seeking public comment on the FCC's policies governing mobile spectrum holdings.⁴ Because of the considerable amount of industry consolidation that had taken place between 2008 and 2012 together with the limited amount of new spectrum (and especially low-band spectrum) that would be made available in upcoming FCC spectrum auctions, RWA submitted comments and reply comments in WT Docket No. 12-269 that detailed a spectrum aggregation policy that would promote competition and provide small and rural carriers with access to low-band spectrum. Specifically, RWA proposed new FCC rules that would: (1) prohibit any licensee from holding more than 25% of suitable and available mobile telephony/broadband services spectrum at the county level; and (2) prohibit any licensee from holding more than 40% of suitable and available low-band (below 1 GHz) spectrum at the county level.

The need for spectrum aggregation limits for all mobile telephony/broadband spectrum below 1 GHz is based on two factors – technical superiority and scarcity – which make such spectrum far more valuable than spectrum above 1 GHz. Low-band spectrum has inherent technical superiority for providing coverage in rural markets. As noted in *Digital Crossroads: Telecommunications Law and Policy in the Internet Age*, “[l]ow-band spectrum presents the most significant advantages in sparsely populated rural areas, where its superior propagation characteristics enable providers to build fewer cell towers that cover larger cells.”⁵ The technical superiority of low band spectrum does not, unfortunately, equate to greater use of such spectrum in rural areas. The Commission has already recognized that low-band spectrum is a much scarcer resource than high-band spectrum.⁶

One of the best and most recent demonstrations of the intrinsic value of low-band spectrum in rural markets is the Verizon Wireless LTE in Rural America program (“Verizon LRA Program”).⁷ As of September 3, 2013, Verizon Wireless had entered into partnership agreements with no fewer than 20 rural carriers in an effort to deploy LTE in remote parts of the

⁴ *In the Matter of Policies Regarding Mobile Spectrum Holdings*, Notice of Proposed Rulemaking, WT Docket No. 12-269, FCC 12-119 (released September 28, 2012) (“*NPRM*”).

⁵ Nuechterlein, Jonathan E., Veiser, Philip J., “*Digital Crossroads: Telecommunications Law and Policy in the Internet Age*,” 2nd. Ed., MIT Press Books (2013) at p. 136. *See also* “*Nokia Solutions and Networks: APT700 Discussion Paper*,” Nokia Solutions Network (released 2013) at p. 3. (“Spectrum resources are highly prized by many industries around the world. In particular, sub 1 GHz spectrum is valued because of its excellent indoor and outdoor propagation performance. This gives technical advantages and the ability to support high quality signals and wider coverage using fewer base stations/broadcast sites.”).

⁶ *In the Matter of Policies Regarding Mobile Spectrum Holdings*, Notice of Proposed Rulemaking, WT Docket No. 12-269, FCC 12-119 (released September 28, 2012) at ¶ 35. (“[T]here currently is significantly more spectrum above 1 GHz potentially available for mobile broadband services than spectrum below 1 GHz.”).

⁷ “LTE in Rural America,” Verizon Wireless News Center; *see* <http://www.verizonwireless.com/aboutus/technology/network.html> (last viewed April 10, 2014).

United States using 700 MHz spectrum.⁸ As of that same date, the Verizon LRA Program had launched LTE commercial service with 13 of its program partners covering over 41,000 square miles and 1.8 million rural residents. At that time, an additional 138,000 square miles and 1 million people were slated to get LTE wireless data using 700 MHz spectrum.⁹ For a company like Verizon Wireless (which it should also be noted has access to high-band PCS and AWS-1 spectrum in most of these markets) to use 700 MHz spectrum, to deploy LTE underscores the points that low-band spectrum is a more cost-effective and operationally efficient medium to deliver wireless broadband to rural consumers when compared to higher frequency spectrum.

AT&T has also used 700 MHz spectrum to fill-out its coverage map. While it is true that AT&T has purchased various PCS, AWS-1 and 700 MHz licenses around the country, some of its largest license acquisition in recent years in terms of size and dollar amounts has been in the Lower 700 MHz band and in predominantly rural markets. Indeed, in a deal that closed in late 2013, AT&T purchased from Verizon Wireless numerous Lower 700 MHz licenses in mostly rural markets while selling back to Verizon Wireless AWS-1 spectrum in mostly urban markets.¹⁰

By contrast, companies like Sprint and T-Mobile have been unable to successfully implement similar rural partnership or rural deployment strategies, and much of that inability stems from the fact that neither company has sufficient *low-band* spectrum to use for such endeavors. Both Sprint and T-Mobile have coverage holes in rural America, despite the fact that each carrier individually owns PCS, AWS-1 and/or BRS spectrum in rural markets (some of which has been in their possession for nearly 20 years). Nonetheless, these two nationwide carriers who would benefit the most from rural partnerships and rural deployments that would reduce their need to roam on AT&T and Verizon Wireless have been unable to do so. Their predominantly high-band spectrum has precluded them from entering into competitive, cost effective rural deployment partnerships with rural wireless carriers, and all but relegated both competitors to urban and suburban markets. To rectify this problem, in just the last few months, T-Mobile has taken the initiative to purchase 700 MHz spectrum and Sprint has announced a new rural partnership plan with NetAmerica that also relies on 700 MHz spectrum.¹¹

⁸ “4G LTE Network Launches in Rural Alaska,” Verizon Wireless News Center; *see* <http://www.verizonwireless.com/news/article/2013/09/4g-lte-rural-america-program-alaska.html> (last viewed April 10, 2014).

⁹ *Id.*

¹⁰ “AT&T Completes Acquisition of 700 MHz Spectrum from Verizon Wireless to Support 4G LTE,” AT&T Press Release (released September 10, 2013); *see* <http://www.businesswire.com/news/home/20130910006927/en/ATT-Completes-Acquisition-700-MHz-Spectrum-Verizon#.U0bhMctOXIU>. The 700 MHz licenses to be acquired by AT&T cover 42 million people in 18 states.

¹¹ “Sprint, Competitive Carriers Association and NetAmerica Alliance Join Forces to Accelerate Deployment and Utilization of 4G LTE Across the United States,” Sprint Newsroom (released March 27, 2014); *see* <http://newsroom.sprint.com/news-releases/sprint-competitive-carriers-association-and-netamerica-alliance-join-forces-to-accelerate-deployment-and-utilization-of-4g-lte-across-the-united-states.htm> (last viewed April 10, 2014).

The original Cellular (850 MHz) spectrum was built-out to such great success is due largely to the combination of geographic build-out requirements and the low-band nature of the spectrum itself – which was ideally suited for rural deployment. The industry is now seeing similar rural deployments using 700 MHz spectrum, much of which has only been available for five years. Meanwhile, PCS, AWS-1, BRS and other high-band spectrum, some of which has been in the hands of Sprint and T-Mobile for nearly two decades, has not seen similar coverage deployments in rural markets.

RWA and its rural members are on the front-line when it comes to providing next generation wireless services in sparsely populated rural environs. Despite the introduction of numerous “new” spectrum bands since the original Cellular licenses were deployed, the only ones that have been able to successfully duplicate the coverage cost effectively are those in the Lower and Upper 700 MHz bands. The particular importance of the build out of these low band licenses in rural areas has been demonstrated time and again by rural carriers and by the nationwide carriers’ purchase and use of low band licenses in their rural deployment and rural partnership programs.

Respectfully submitted,

Rural Wireless Association, Inc.

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